भारतीय मानक Indian Standard

IS 4489 : 2018

चिमटी, नाक टर्बिनेट ल्यूक'स — विशिष्टि

(पहला पुनरीक्षण)

Forceps, Nasal Turbinate, Luc's — Specification

(First Revision)

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Ear, Nose and Throat Surgery Instruments Sectional Committee, MHD 04

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Ear, Nose and Throat Surgery Instruments Sectional Committee and approval of the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1968. First revision of this standard has been taken up to update it with development taken place in the field. All the amendments issued so far have been incorporated in this revision.

This standard is one of a series of Indian Standards on surgical instruments. This standard has been prepared based on indigenous manufacturers' data/practices prevalent in the field in India.

This standard requires reference to IS 3642 (Part 1): 1990 'Surgical instruments — Specification: Part 1 Noncutting articulated instruments (*second revision*), whose provisions, subject to the limitations specified herein, are applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

FORCEPS, NASAL TURBINATE, LUC'S — SPECIFICATION

(First Revision)

1 SCOPE

This standard lays down the requirements for Luc's nasal turbinate forceps.

2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

IS No. Title

1501 (Part 1): Metallic materials — Vickers 2013 hardness test: Part 1 Test method

(fourth revision)

1570 (Part 5): Schedules for wrought steels: 1985 Part 5 Stainless and heat-resisting

steels (second revision)

3642 (Part 1): Surgical instruments — Specifica-1990 tion: Part 1 Non-cutting, articula-

tion: Part 1 Non-cutting, articulated instruments (second revision)

7531: 1990 Surgical instruments — Corrosion

resistance of stainless steel surgical instruments — Methods of tests (first revision)

3 MATERIAL

- **3.1** The forceps shall be made of stainless steel conforming to Designation 30Cr13 of IS 1570 (Part 5).
- **3.2** The screw shall conform to the Designation mentioned in **3.1**.

4 SHAPE AND DIMENSIONS

- **4.1** The general shape and dimensions of the forceps shall be in accordance with Fig. 1 and Fig. 2.
- **4.2** Tolerances on dimensions where not specified shall conform to IS 3642 (Part 1).

4.3 Joints

The joint shall be of the cut-through type. The other requirements for the joint shall conform to Section 3

of IS 3642 (Part 1).

5 WORKMANSHIP AND FINISH

The forceps shall be of a symmetrical and balanced construction and shall open and close with even jerk less movement. The jaws shall be semi-sharp over the periphery as shown in Fig. 2 and shall engage accurately in the closed position. The arms of the forceps shall be free from surface defects, such as scales, burrs, pits, cracks and seams. All sharp edges, except the periphery of the jaws, shall be rounded smooth. The forceps shall be passivated and polished bright.

6 HEAT TREATMENT

The forceps shall be suitably hardened and tempered to give a uniform hardness of 430 to 490 HV of the finished instrument when tested at the tips in accordance with IS 1501 (Part 1).

7 TESTS

7.1 Performance

The jaws of the forceps shall be made to bite on a double layer of wet blotting paper. The jaws shall leave a clear impression of the complete semi-sharp edge on the blotting paper. They shall also be similarly tested on a flat 3 mm thick cork or cork sheeting and shall leave a clear impression of the complete semi-sharp edge on the cork.

7.2 Flexibility

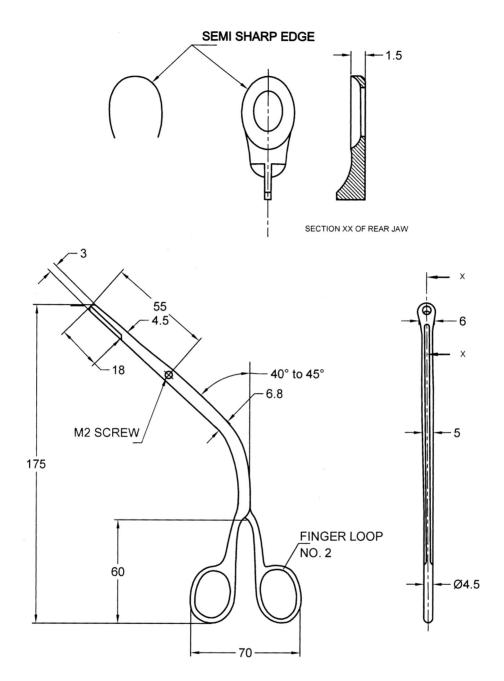
The jaws of the forceps shall be closed on a 3 mm thick hard rubber piece and the arms pressed fully. No permanent set shall be noticed on the forceps and after this test the forceps shall satisfy the performance test prescribed in 7.1.

7.3 Corrosion Resistance

The instrument shall satisfy the boiling and autoclaving test as specified in IS 7531.

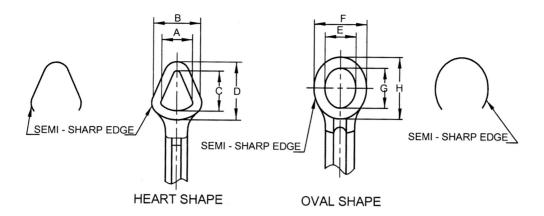
8 MARKING

8.1 Each forceps shall be clearly and indelibly marked with the manufacturer's name, initials or trade-mark, in addition to the letters 'SS'.



All dimensions in millimetres.

Fig. 1 Forceps, Nasal Turbinate, Luc's Pattern



All dimensions in millimetres.

Fig. 2 Shapes of Jaws of Forceps, Nasal Turbinate, Luc's Pattern

8.2 BIS Certification Marking

The forceps may also be marked with the Standard Mark.

8.2.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or

producers may be obtained from the Bureau of Indian Standards.

9 PACKING

The forceps shall be wrapped in moisture-proof paper or polyethylene bag; then they shall be packed in a manner that coming into contact with each other is avoided.

Bureau of Indian Standards

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: MHD 04 (0403).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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